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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/500,635
Filing Date: March 30, 2005
Appellant(s): KUCZYNSKI ET AL.

John L. Cordani
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/02/09 appealing from the Office action mailed 09/08/2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: appellant states that claim 19 has been rejected over alleged admitted prior art in view of Teng and Robinson et al. (Roman Numeral 'IV'). However, it is claim 14 that has been rejected over alleged admitted prior art in view of Teng and Robinson et al. This mistake appears to be typographical in nature.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,541,183	Teng	Apr. 1, 2003
2003/0054153	Kuczynski et al.	Mar. 20, 2003
3,264,103	Cohen et al.	Aug. 2, 1966
5,795,647	Robinson et al.	Aug .18, 1998
5,706,731	Francille et al.	Jan. 13, 1998
FR2803245	Kuczynski et al.	Jul. 6, 2001

Appellants' Admitted Prior Art. Appellants' specification, pp. 1-3

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 2, 5, 13, 15-17, 19, 22-25, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Teng (US 6541183).

Regarding claims 1 and 2, AAPA teaches "a method for the producing a flexographic printing plate, which has a base layer and a layer of a light sensitive material attached to the base layer (page 1 lines 4-11), comprising producing an image in the layer of the light sensitive material by selective crosslinking (page 1, lines 4-10),

by insolating zones which are to be crosslinked with amplitude modulated laser light having a wavelength (page 1 lines 17-19), and sweeping the layer of the light sensitive material with the amplitude modulated laser light to produce crosslinked zones in the layer of light sensitive material without the use of a mask (page 1, lines 17-19), and, thereafter, removing zones which are not crosslinked to create the image in the solid layer of the light sensitive material (page 1, lines 7-10)."

AAPA fails to teach that the laser light has "a wavelength of 390 to 410 nm," that the solid layer includes "at least one photoinitiator sensitive to said laser light at said wavelength," or that "the photoinitiator undergoes a photoreaction under effect of said laser light to bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to said laser light in order to enable cross-linking throughout the thickness of the layer of light sensitive material."

Teng teaches that violet laser diodes having a wavelength of "about 405nm" are preferred because they have lower cost (column 10, lines 43-51). AAPA also fails to teach the use of "a bundle of diodes," as claimed in claim 2. Teng further teaches using a bundle of diodes in order to have a higher throughput (column 2, lines 35-40). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use a bundle of violet laser diodes in the method of AAPA in order to have a lower cost method with higher throughput, as taught by Teng.

Teng further teaches using a corresponding initiating system for the selected wavelength of light (column 5, lines 52-67).

AAPA discloses a number of photoinitiators sensitive to the wavelength of light used that were commercially available at the time of the invention (first paragraph of page 3), and further teach that all of the listed photoinitiators inherently "undergo a photoreaction under effect of said laser light to bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to said laser light in order to enable cross-linking throughout the thickness of the layer of light sensitive material (applicants' admission in the third paragraph of page 8 of applicants' reply dated 04/16/08, and in the amendment to the specification of the same date)."

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use any of the commercially available photoinitiators disclosed by AAPA in the modified method of AAPA in order to have a light sensitive layer that is sensitive to the wavelength of light being used to expose said layer, as taught by Teng.

Finally, AAPA also fails to specifically mention the thickness of the solid layer of light sensitive material. However, Examiner takes Official Notice that it was common practice in the art, at the time of the invention, to make the thickness of light sensitive layer of a flexographic printing plate "between 0.5 and 2 mm" in order to achieve a printing plate which produces an acceptable image. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to make the thickness of the light sensitive layer in the modified plate of AAPA "between 0.5 and 2 mm" in order to produce an acceptable image.

Regarding claims 5 and 28, Teng further teaches "wherein the light sensitive material contains at least one selected from the group consisting of high molecular

weight polymers, functionalized monomers or oligomers and photo-initiators (column 5, lines 52-67)."

Regarding claim 13, Teng further teaches "insolating the light sensitive material with an energy in a range from 20 to 1000 mJ/cm^2. (column 10, lines 50-54)."

Regarding claim 15, the array of diodes taught by Teng operate "in parallel."

Regarding claim 16, the plate produced by the modified method of AAPA from claim 1 above results in the structure claimed. See also page 2, lines 16-17 of Applicants' specification which admits that a printing plate in the form of a tubular sleeve on a rigid support is known in the art.

Regarding claim 17, AAPA as modified teach all that is claimed, but fail to specifically mention the thickness of the composite base. However, Examiner takes Official Notice that, at the time of the invention, it was known to make the thickness of the composite base have "a range from 0.2 to 40 mm" in order to achieve a printing plate with proper support. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to make the composite base of the printing plate of AAPA have a thickness in "a range of 0.2 to 40 mm" in order to achieve a printing plate with proper support.

Regarding claim 19, the sleeve is inherently compressible, since it is made of polymers, specifically elastomers (see page 1, lines 11-13 of applicants' specification).

Regarding claims 22-24, the recited limitations are product-by-process limitations which do not recite structure which defines over the modified structure of AAPA.

Regarding claim 25, AAPA as modified fails to disclose "wherein the rigid support includes a base made of polyester film." However, examiner takes Official Notice that it was known to use a polyester film as a support base in order to achieve a useful printing plate. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use a polyester film as a support base in the modified plate of AAPA in order to achieve a useful printing plate.

Regarding claim 29, the plate produced by the modified method of AAPA from claim 28 above results in the structure claimed. See also page 2, lines 16-17 of Applicants' specification which admits that a printing plate in the form of a tubular sleeve on a rigid support is known in the art.

2. Claims 3, 4 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Teng, as applied to claim 1 above, further in view of Cohen et al. (US 3264103).

Regarding claim 3, AAPA as modified fails to teach that the non-crosslinked zones are removed "by liquefying the zones which are not crosslinked thermally, without using solvents." However, Cohen et al. teach such a method (column 1, lines 67-72) in order to avoid using toxic chemicals (column 1, lines 30-33). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use the dry process of Cohen et al. in the modified method of AAPA in order to avoid using toxic chemicals.

Regarding claim 4, Cohen et al. further teach "wherein the light sensitive material not crosslinked by the laser light has a variation in viscosity in a temperature range from 60 to 140°C., and the zones that are crosslinked melt at a temperature higher than the temperature range (column 1, line 55-72).

Regarding claim 27, when further modifying AAPA in accordance with Cohen et al., as in claim 3 above, inherently, the "flexographic printing plate is etchable with one of water, an aqueous solution under pressure, high temperature, and brushing."

3. Claims 6-12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Teng, as applied to claim 1 above, further in view of Kuczynski et al. (FR 2803245). For simplicity, the corresponding US document of FR 2803245, US 2003/0054153, will be used for citations.

Regarding claim 6, AAPA as modified teaches all that is claimed, as in claim 1 above, but fails to teach "the light sensitive material is a photo-polymer containing at least two complementary crosslinking systems."

Kuczynski et al. teach the need to adjust the compressibility of a printing plate in order to increase productivity and to improve printing quality (paragraph 4). Kuczynski et al. further teach a crosslinking system for flexographic printing plates comprising two complementary systems which allows for adjusting the compressibility of the photopolymer layer (paragraphs 62-64).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to include a complementary crosslinking system in the

photopolymer layer in the modified method of AAPA in order to adjust the compressibility of the printing plate and/or to increase productivity and/or to improve the printing quality.

Regarding claim 7, Kuczynski et al. further teach "wherein a main crosslinking system is used to create the image in the solid layer of the light sensitive material (paragraph 64)." In this paragraph, examiner interprets the 'main system' as the imaging system, and the 'complementary system" as the system which modifies the compressibility after the printing plate has been imaged and created.

Regarding claim 8, Kuczynski et al. further teach "wherein a complementary crosslinking system is used to complete the crosslinking and to increase chemical and mechanical resistance (paragraphs 62-63 and paragraph 144)."

Regarding claim 9, Kuczynski et al. further teach "including using a complementary system to generate different compressibilities (paragraph 64)."

Regarding claim 10, Kuczynski et al. further teach "including partially crosslinking the photo-polymer to adjust viscosity and prevent cold creep during prolonged storage periods or transport (paragraph 62)." Examiner notes here that creating or destroying other bonds inherently adjusts the viscosity.

Regarding claim 11, Kuczynski et al. further teach "including sensitizing the photo-polymer with a flash of light before writing an image with the laser light (paragraphs 170-172)."

Regarding claim 12, even though AAPA as modified does not specifically disclose that "the light sensitive material is a polymer with hardness between 60 and

70ShA," the structure and process by which it is made are identical to that of the instant claims. As a result, since the polymer in the modified method of AAPA is identical to the claimed polymer, the claimed hardness property is met by the polymer of AAPA. See MPEP 2112.01.

Regarding claim 26, Kuczynski et al. further teach including a plurality of layers of light sensitive material (paragraphs 169-170).

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Teng, as applied to claim 1 above, further in view of Robinson et al. (US 5795647). Regarding claim 14, AAPA as modified fails to teach that the sleeve could be produced by "thermally projecting pre-formulated powders onto a support sleeve to produce the sleeve." However, one having ordinary skill in the art would recognize that powder coating and extrusion coating methods are both recognized as equivalent methods of applying polymers. Further, column 2, lines 15-18 of Robinson et al., teach the same. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use either method in order to easily and properly apply the polymers for the flexographic printing plate.

5. Claims 20, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Teng as applied to claim 16 above, further in view of Francille et al. (US 5706731).

Regarding claim 20, AAPA as modified discloses all that is claimed except

"including a second sleeve containing an inserted layer for variation of thickness of the sleeve."

Francille et al. teach including a second sleeve in order to facilitate changing sleeves (column 2, lines 25-63).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to include a second sleeve in order to facilitate changing sleeves.

Regarding claim 21, Francille et al. further disclose "wherein the inserted layer is compressible (since the layer is a polymer, it is inherently compressible to some degree)."

Regarding claim 26, each of the layers of the modified structure of AAPA is light sensitive, thereby meeting the claim limitation that there be a plurality of layers of light sensitive material.

(10) Response to Argument

Appellants' Argument I

All of the arguments presented in this section amount to arguments against the references individually, and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Regardless, each point will be separately addressed.

Point 1

Appellants essentially argue that Teng is non-analogous art because the laser of Teng is used to create a different effect; namely: the laser of Teng is not used to create a relief image in a printing plate. However, this is not persuasive. First of all, the laser of Teng is used to imagewise expose a printing plate (column 10, lines 43-44). Clearly, imagewise exposing a printing plate, albeit a lithographic plate, is relevant to imagewise exposing a flexographic printing plate. Further, the teaching of Teng used in the rejection is that laser diodes of 'about 405nm' are preferred because of their lower cost. Without a doubt, the fact that the laser diodes of Teng have a lower operational cost is just as true in a flexographic plate exposure process as in a lithographic plate exposure process. As such, one having ordinary skill in the art would have a reasonable expectation of success in exposing a flexographic printing plate with a laser similar to the one used by Teng.

Furthermore, Appellants' reliance on the declaration of Christian Decker to support the argument is unpersuasive, at least in regard to Point 1 of appellants. To the extent that it can be considered objective evidence, the declaration of Christian Decker is not commensurate in scope with the claim in question, as the declaration assumes that the invention includes 'at least one acylphosphine oxide photoinitiator' (past sentence of paragraph 4 of the declaration). Claim 1 does not require the use of said photoinitiator.

Finally, the declaration of Christian Decker argues that the thickness of the layer of Teng is three orders of magnitude smaller than that claimed. However, Teng actually

discloses that the layer is "at least 1 micron" (column 5, line 14). Thus, Teng actually encompasses the claimed range of 0.5 to 2mm.

Point 2

Appellants' argument that the cited portion of Appellants' specification is not admitted prior art is unpersuasive. Page 1, line 11 of Appellants' specification states:

"Methods and flexographic printing plates *of this type* are already known." Furthermore, lines 17-22 are in between two paragraphs which explicitly admit the methods are known. Clearly, the method and printing plate referenced in the lines 17-22 are admitted prior art.

Appellants' argument that there is no disclosure of operating without a mask is incorrect. Line 17 clearly states that in the known method the image is produced by 'direct writing.' Direct writing is a method that writes the image directly onto the surface. Because it is a *direct* method, no mask is needed or used. Appellants are aware of this fact, as Appellants' sets forth that in appellants' invention "the image on the light sensitive layer is produced by direct writing using light with a wavelength in a range on the order of 390 to 410 nm approximately, which is emitted by a laser modulated in terms of amplitude by software and which sweeps the surface of the plate (page 2, lines 27-30)." Therefore, since Appellants' invention uses direct writing, and is claimed to not use a mask, the method of AAPA must also not use a mask.

Point 3

Appellants argue that Examiner's use of the fact that the claimed bleaching property of the photoinitiators is inherent 'is incorrect and completely unsupportable.' Firstly, this argument is not understood, as Appellants admit in the very next sentence:

"[O]f course the chosen photoinitiators inherently posses (sic) the property of bleaching the photopolymer layer."

The Examiner fails to see how the position taken in the Action can be both incorrect and unsupportable when the inherency is plainly admitted to by Appellants.

Appellants further argue that the invention consists of 'discovering that certain, specially chosen photoinitiators have the ability to bleach a photopolymer layer as it cures,' 'realizing that this newly discovered property can assist in more efficiently curing a thick photopolymer layer,' and 'applying the foregoing two newly discovered principles to the manufacture of a thick relief printing plate using a violet laser and no mask to selectively and efficiently cure and create a thick relief image.'

However, it has been held that mere discovery of an inherent function is not patentable when the inherent function is a natural outcome of a proper combination of prior art. MPEP §2145 (II). In the instant case, since there is motivation to use the initiators in the modified method of AAPA, any claimed inherent functions which would flow naturally from the combination are not patentable.

Appellants then argue that none of the cited references (specifically Teng) teach or suggest using a photoinitiator that "undergoes a photoreaction under effect of the laser light to bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to the laser light in order to enable cross-linking

throughout the thickness of the layer of light sensitive material," as claimed. However, it has been held that the prior art reference (or references when combined) need not teach or suggest all the claim limitations. The proper analysis is whether the claimed invention would have been obvious to one of ordinary skill in the art after consideration of all the facts. MPEP §2141(III).

In the instant case, as stated in the rejection, Teng teaches using a certain wavelength laser (about 410 nm) because it is lower in cost (column 10, lines 47-51), and further teaches using a corresponding initiating system for the selected wavelength of light (column 5, lines 52-67). Appellants have admitted numerous times that such initiating systems which correspond to said certain wavelength (such as the Ciba® Darocur® TPO photoinitiator shown in Exhibit A) were commercially available at the time of the invention (first paragraph of page 3 of appellants' specification, for example).

Therefore, given all of these facts, one having ordinary skill in the art would have been motivated not only to use a laser with a wavelength of about 410nm, but also to choose a corresponding initiating system. Since many initiating systems which correspond to the certain wavelength were commercially available at the time of the invention, the motivation to use them as the corresponding initiating system is self-evident: ease and speed of their acquisition, no overhead or incidental costs associated with manufacturing them in-house, etc.

Since the motivation exists to incorporate the initiators into the modified system of AAPA, a recitation to inherent functions which would flow naturally from the combination (namely, that the photoinitiator "undergoes a photoreaction under effect of

the laser light to bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to the laser light in order to enable cross-linking throughout the thickness of the layer of light sensitive material") does not render the claim patentable.

Appellants further rely on the Declaration of Dr. Decker so argue that one having ordinary skill in the art would not have a reasonable expectation of success to "apply Teng's method" to photobleach and crosslink a thick light sensitive layer.

Firstly, on this point, it is not the method of Teng which is used to modify the method of AAPA; rather, it is the teaching of Teng that lasers with wavelengths of about 410 nm have a lower cost (and to use a corresponding initiation system) that is used to modify the method of AAPA. As discussed previously, this teaching of Teng is applicable to both of a lithographic or flexographic exposure system, and does not lose its validity simply because the laser is now being pointed at a different plate.

Secondly, Dr. Decker asserts that "reactions induced by light are highly dependent on sample thickness due to the limited penetration of UV light and visible radiation in absorbing media," and, as such, would cause one having ordinary skill in the art to not have a reasonable expectation of success to apply Teng's method (Decker Declaration, paragraph 6). However, the opinion of Dr. Decker does not rise to the level of factual evidence required to overcome a case of obviousness. For instance, no evidence has been submitted which would show that laser light with a wavelength around 410 nm would be ineffective to expose a 0.5 mm- to 2 mm-thick layer of photosensitive material corresponding to that of AAPA. In fact, Exhibit A submitted by

appellants provides evidence that light around 410 nm would penetrate larger thicknesses. Page 2 of Exhibit A shows that an application of the Darocur® TPO photoinitiator is in formulations for clear **and pigmented** coatings on wood, metal, and plastic (first paragraph under "Applications" heading). Coatings on wood metal and plastic are certainly much larger than one micron, and one having ordinary skill in the art would reasonably expect the coatings to at least be on the order of half a millimeter. Furthermore, since the initiator is useful in such coatings which contain pigments, when using the initiators in the modified system of AAPA, one having ordinary skill in the art would reasonably expect the light used to initiate the crosslinking to penetrate the full depth of the light-sensitive layer.

Finally on this point, the assertion by appellants that one having ordinary skill in the art would not have a reasonable expectation of success to "apply Teng's method" to ***photobleach and crosslink*** a thick light sensitive layer is not relevant to the issue at hand; since the photobleaching is an inherent property of the initiator, it is not required that one having ordinary skill in the art have a reasonable expectation that using Teng's method would *photobleach and crosslink* a thick light sensitive layer. Rather, in the instant case, it is only required that one having ordinary skill in the art have a reasonable expectation of success in using a laser with wavelength of about 410 nm to insolate zones of a thick light sensitive material. As stated above, there is no evidence of record which would show that the proposed modification would fail.

Next, on page 10 of appellants' brief, appellants object to the position taken by the Examiner that the admission by appellants (in the specification at page 3, first paragraph, in the arguments filed April 16th, 2008 and in the amendment to the specification of the same date) that certain photoinitiators were commercially available and that said photoinitiators inherently produce a photobleaching effect amount to admitted prior art.

Again, the objection by appellants is not understood, as appellants have repeatedly admitted on the record that the initiators were commercially available, and that the properties disclosed are inherent. Simply because the admission is in the detailed description of the invention does not negate the fact that the properties are inherent. Furthermore, MPEP §§ 2112.01 and 2145(II) clearly set forth that any inherent properties of a claimed structure or composition, or any features which will naturally occur as a result of a valid combination of prior art elements, are not patentable. It is therefore unclear why the admissions of Appellants cannot be relied upon to reject the claims.

Appellants again state that "it was left to the inventors here to discover this inherent property, realize the application of this newly discovered property and employ the newly discovered property in the fabrication of a thick relief printing plate without a mask where it could provide concrete advantages." However, it has been held that mere discovery of an inherent function is not patentable when the inherent function is a natural outcome of a proper combination of prior art. MPEP §2145 (II). In the instant case, since there is motivation to use the initiators in the modified method of AAPA, any

claimed inherent functions which would flow naturally from the combination are not patentable.

Lastly, Appellants essentially challenge the taking of Official Notice that it was common practice in the art, at the time of the invention, to make the thickness of light sensitive layer of a flexographic printing plate between 0.5 and 2 mm in order to achieve a printing plate which produces an acceptable image. As support, Kuczynski et al. (which is of record and used in the rejection of claims 6-12 and 26) shows that the photopolymer layer of the flexographic plate is between 0.4 and 2.5 mm (paragraph 126), and further states that a plate should have a "thickness which is standardized in the industry, and which can be 1.14 mm, 1.70 mm … (paragraph 227, and following paragraphs)." Clearly, one having ordinary skill in the art, when modifying the method of AAPA in accordance with the teachings of Teng, would have made the thickness of the light sensitive layer between 0.5 and 2 mm such that the resultant plate met the industry standard thickness.

Appellants' Argument II

Appellants rely on the previous arguments from section I. As such, the Examiner hereby repeats and maintains the responses above with regard to section I.

Appellants' Argument III

Appellants argue that it is improper to compare the lithographic layer of Teng with the compressible layer of Kuczynski et al. because "the objective of Kuczynski [et al.] is to provide a printing plate whose compressibility is not uniform over the entire printing plate." While that is one objective of Kuczynski et al., Kuczynski et al. also teach that by making compressibility of the layer adjustable, the pressure in the nip can be better controlled, which allows for an increase in productivity and an improvement in printing quality (paragraph 4). Clearly, this teaching by Kuczynski et al. is more than relevant to the method at hand.

Regardless, comparisons between the layer of Teng and the layer of Kuczynski et al. are moot, as it is neither the layer of Teng nor the layer of Kuczynski et al. which is being modified. Rather, it is the layer of AAPA which is being modified. Furthermore, as stated previously, it is only the laser system of Teng which is being used to modify the method of AAPA. Similarly, regarding the rejection of claims 6-12 and 26, it is the teaching of Kuczynski et al. to use a complementary crosslinking system in order to adjust and control the compressibility of a flexographic plate that is used to further modify the method of AAPA.

Moreover, the test for obviousness is not whether the features of a secondary reference (in this instance, the compressible layer of Kuczynski et al. or the layer of Teng) may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would

have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Next, appellants argue that there is no teaching or suggestion in Kuczynski et al. of using laser light. First, it is not required that Kuczynski et al. use a laser light, as the limitation of using a laser has already been met with the combination of AAPA and Teng. Secondly, even if it were required that Kuczynski et al. use a laser light, Kuczynski et al. teach that, in order to harden the layer, the layer can be *selectively* irradiated with UV radiation (paragraph 197), that irradiation with UV light can be modulated in duration and energy (paragraph 202), and that the hardening by UV radiation is done in a spatial distribution corresponding to the image to be printed (paragraph 203). Even though Kuczynski et al. do not expressly describe the use of a laser, clearly one having ordinary skill in the art would realize that a laser would be the proper tool for selectively irradiating the plate in a spatial distribution corresponding to an image.

Appellants further argue that replacing the UV light of Kuczynski et al. with the laser light of Teng would fundamentally alter the principle of operation of the method of Kuczynski et al. because, allegedly, the UV light for the subsequent cross-linking step of the photopolymer layer of the printing plate of Kuczynski et al. must simultaneously activate the monomers which are distributed in the compressible layer. However, this is not true. Kuczynski et al. teach that the compressibility can be adjusted *after* the plate has been produced, that is, after the plate has been imaged (paragraphs 192-193).

Regardless, in the instant case, the laser of Teng is used to image the light-sensitive material, *not* necessarily to do anything to the complementary crosslinking system. There is no limitation in the claims that the same laser light used to image the printing plate must be used in the complementary crosslinking system. So even if the laser of Teng would not serve to further crosslink the system of Kuczynski et al., it is not required to do so as the claims to not prevent a secondary radiation source from being used. Again, it is not required that the features of a secondary reference be bodily incorporated into the structure of the primary reference.

Finally in this section, appellants argue that the claimed method provides a photo-crosslinked polymer with a strong elastomeric character, relying on the Declaration of Dr. Decker to support the allegation and to further assert that high molecular weight rubbers bearing reactive double bonds as a starting material are required. Appellants continue that Teng cannot provide such a polymer because Teng does not use high molecular weight rubbers.

Firstly, these limitations are not recited in the rejected claims, and thus the argument is moot. Secondly, appellants once again read more of Teng into the rejection than has been used; it is only a laser having a wavelength of about 410 nm which is used in the modification of AAPA, **not** the entire polymer and plate of Teng. Lastly, to the extent that the Declaration of Dr. Decker constitutes objective evidence, the evidence submitted is not commensurate in scope with the claims because there is no requirement in the claims that high molecular weight rubbers bearing reactive double bonds be used as a starting material.

Appellants Argument IV

Appellants argue that Robinson et al. do not teach the 'use of extrusion on a round cylinder in the *specific process* claimed by this invention.' (emphasis added) As should be evident by now, it is not required that a reference teach each and every element claimed, especially when the rejection is based upon a combination of references. In the instant case, Robinson et al. is cited for showing that powder coating is an art-recognized means of applying polymer layers. It has been held that selection of a process which is recognized in the art as being suitable for an intended purpose is not patentable (MPEP §2144.07).

Appellants Argument V

Appellants argue that Francille et al. do not disclose the use of a second sleeve containing and inserted layer for variation of the thickness of the sleeve, and that the purpose of the method of Francille et al. is different. Regarding the latter argument, it is not required that the purpose of the prior art be the same; only that the claimed structure be met. Regarding the assertion that Francille et al. do not disclose a sleeve with an inserted layer, the sleeve 12 (here, interpreted to be the claimed 'second sleeve') has an integral fixed ring 28, which can be interpreted to be the 'inserted layer.'

Finally, appellants state that 'there is no admitted prior art revealing a plurality of layers of light sensitive material.' Examiner agrees with this statement, but points out that the rejection states that "each of the layers of the *modified* structure of AAPA is light

sensitive, thereby meeting the claim limitation that there be a plurality of layers of light sensitive material." Thus, it was not asserted that AAPA discloses the claimed limitation; rather, it was asserted that the *modified* structure of the flexographic printing plate of AAPA meets the claimed limitations. Since AAPA as modified now contains a second sleeve made of resin (see column 6, lines 66-67 of Francille et al.), there are at least two layers of light-sensitive material.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Joshua D Zimmerman/

Examiner, Art Unit 2854

Conferees:

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854

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